







## Communicable Disease Activity

This activity is adapted from

<http://www.lessonplanspage.com/ScienceHowVirusesTravel58.htm>

Activity Description:	Students will explore how a communicable disease is transmitted through a group of individuals at a party.
Concepts/Vocabulary: 	Parasite Bacteria Virus Fungi Germ Agent Pathogen Communicable disease Infectious disease Contagious disease Transmissible disease Method of Transmission Host Incidence Prevalence Zoonosis Vector Fomite MRSA
Careers Introduced:	Public Health Nurse Master of Public Health Epidemiologist Infection Control Nurse School nurse Histopathologist Infection Control Practitioner (ICP) Communicable Disease Specialist Malariologist Clinical Researcher Veterinary Epidemiologist
Materials Needed:	<div> <ul style="list-style-type: none"> <li>• Flour</li> <li>• Baking Soda</li> <li>• Vinegar</li> <li>• Disposable cups</li> <li>• Pencil and paper for students</li> <li>• Gloves</li> </ul> </div> <div>    </div>

	<ul style="list-style-type: none"> <li>• White Board to record transmission pathway</li> </ul>
Procedures:	<ol style="list-style-type: none"> <li>1. Each student receives a cup about 1/3 to ½ full of flour, EXCEPT for one. The other student will have baking soda in their cup. Cover the baking soda with a light dusting of flour to disguise the different colored powders.</li> <li>2. Mark the bottom of the cup with baking soda with a sad face. It is a good idea to mark a few other cups on the bottom with happy faces or other marks in case the students notice the sad face.</li> <li>3. Have each student put a glove on one hand.</li> <li>4. Tell students they are at a party and their cups are drinks. Tell them to ask a maximum of two other people to “share” their drink. Students can only approach two people and ask to share. However, students must share with anyone who asks them so they may share with several people.</li> <li>5. To “share” take the entire contents of one cup and dump it into the other person’s cup . Use the gloved hand to cover the top of the cup and mix the powders up. Then take half of the mixture from this cup and pour it back into the other person’s empty cup.</li> <li>6. Instruct students to RECORD each person they shared with in the order that they shared (no matter who asked whom to share). The order is very important.</li> <li>7. When students are finished sharing, tell them that one person at the party is sick. You are going to determine who is sick by pouring an “indicator” into each person’s cup. The instructor will then pour a small amount of vinegar in each person’s cup. Every person whose cup bubbles is now infected.</li> <li>8. On a white board or chart, start with one sick person and record who they shared with and in what order. Then ask those people if they are sick and record who they shared with. In this way, the class can see if they can determine who the sick person is at the party.</li> <li>9. When you think you have it figured out, ask students to look at the bottom of their cups. The one with the sad face was the sick one who spread it to the others.</li> </ol>
Key Discussion Items:	How does this exercise demonstrate what happens in a community? How could this have been prevented? What are some communicable diseases that must be reported to the State Health Department? What is the incidence of the illness?

Handwashing Activity Information

Germ Juice can be obtained at: <http://www.germjuice.com/>